ABSTRAK

Nur Hanifah Fitriana. K2314031. **EKSPERIMENTASI MODEL PEMBELAJARAN *RELATING, EXPERIENCING, APPLYING, COOPERATING, TRANSFERRING* (REACT) DITINJAU DARI SIKAP ILMIAH SISWA SMA PADA MATERI USAHA DAN ENERGI**. Skripsi, Surakarta: Fakultas Keguruan dan Ilmu Pendidikan Universitas Sebelas Maret, Mei 2019.

Penelitian ini bertujuan untuk mengetahui ada atau tidaknya: (1) Perbedaan pengaruh antara penggunaan model pembelajaran *Relating, Exeriencing, Applying, Cooperating, Transferring* (REACT) melalui metode eksperimen dan demonstrasi terhadap kemampuan kognitif Fisika siswa, (2) Perbedaan pengaruh antara sikap ilmiah siswa kategori tinggi dan rendah terhadap kemampuan kognitif Fisika siswa, (3) Interaksi antara pengaruh penerapan model REACT melalui metode eksperimen dan demonstrasi dengan sikap ilmiah siswa terhadap kemampuan kognitif Fisika siswa.

Metode penelitian yang digunakan adalah metode eksperimen dengan desain faktorial 2x2. Penelitian dilaksanakan di SMA Negeri 1 Ngemplak Tahun Ajaran 2017/2018. Teknik pengambilan sampel yang digunakan yaitu *cluster random sampling*. Sampel yang digunakan dalam penelitian ini sebanyak 2 kelas, yaitu kelas X MIPA 3 sebagai kelas eksperimen dan kelas X MIPA 4 sebagai kelas kontrol. Teknik pengumpulan data yang digunakan adalah teknik kajian dokumen, observasi, dan tes tertulis. Kajian dokumen berupa nilai Penilaian Akhir Semester Ganjil. Teknik observasi digunakan untuk memperoleh data sikap ilmiah siswa. Teknik tes tertulis digunakan untuk memperoleh data kemampuan kognitif Fisika siswa setelah mempelajari materi Usaha dan Energi. Data yang diperoleh dianalisis menggunakan anava dua jalan dengan isi sel tak sama.

Berdasarkan hasil penelitian, dapat disimpulkan bahwa: (1) Terdapat perbedaan pengaruh antara penggunaan model *Relating, Experiencing, Applying, Cooperating, Transferring* (REACT) melalui metode eksperimen dan demonstrasi terhadap kemampuan kognitif Fisika siswa (F_{obs} = 7,677 > F_{tabel} = $F_{0,05;1;75}$ = 4,00), (2) Terdapat perbedaan pengaruh antara sikap ilmiah siswa kategori tinggi dan rendah terhadap kemampuan kognitif Fisika siswa (F_{obs} = 8,972 > F_{tabel} = $F_{0,05;1;75}$ = 4,00), (3) Tidak ada interaksi antara pengaruh penggunaan model REACT melalui metode eksperimen dan demonstrasi dengan sikap ilmiah siswa terhadap kemampuan kognitif Fisika siswa (F_{obs} = 0,029 < F_{tabel} = $F_{0,05;1;75}$ = 4,00). Penerapan model pembelajaran REACT melalui metode eksperimen maupun demonstrasi dan sikap ilmiah siswa memberikan pengaruh sendiri-sendiri terhadap kemampuan kognitif Fisika siswa pada materi Usaha adan Energi.

Kata kunci: Model REACT, Eksperimen, Demonstrasi, Sikap Ilmiah, Usaha dan Energi.

ABSTRACT

Nur Hanifah Fitriana. K2314031. ***EXPERIMENTATION OF RELATING, EXPERIENCING, APPLYING, COOPERATING, TRANSFERRING (REACT) LEARNING MODELS CONSIDERED FROM STUDENT'S SCIENTIFIC ATTITUDE IN SENIOR HIGH SCHOOL STUDENTS ON WORK AND ENERGY MATERIALS****. Thesis, Surakarta: Faculty of Teacher Training and Education in Sebelas Maret University, May 2019.*

This research aims to determine whether or not there were: (1) The differences influence between the using of learning models of Relating, Experiencing, Applying, Cooperating, Transferring (REACT) through experimental and demonstration methods to the physic cognitive abilities in senior high school students, (2) The differences influence between the scientific attitudes in high and low category students towards student physics cognitive abilities, (3) The interaction between the use of REACT learning model through experimental and demonstration methods with students' scientific attitudes towards physic cognitive abilities of senior high school students.

The method in this research was an experimental method with a 2x2 factorial design. The research was conducted at SMA Negeri 1 Ngemplak in the academic year of 2017/2018. The sampling technique was cluster random sampling. The Samples that were used by the researcher in this study consisted of 2 classes, namely X MIPA 3 class as an experimental class and X MIPA 4 class as a control class. The data collection technique which was used a document study technique, observation, and written test. The study document was the final odd semester value. The observation technique was to obtain student scientific attitudes data. The written test technique was used to obtain the data on student cognitive abilities after studied the material about work and energy. The data obtained was analyzed by using two-way of anava with the unequal cell.

Based on the results of the research, it can be concluded that: (1) There were differences influence between the use of the model of Relating, Experiencing, Applying, Cooperating, Transferring (REACT) through experimental methods and demonstrations of ability cognitive student physics (F_{obs} = 7,677 > F_{tabel} = $F_{0,05;1;75}$ = 4,00), (2) There were the differences influence between the scientific attitudes of high and low categories of students toward student physics cognitive abilities (F_{obs} = 8,972 > F_{tabel} = $F_{0,05;1;75}$ = 4,00), (3) There was not an interaction between the influence of the use of REACT model through experimental and demonstration methods with students' scientific attitudes toward the student physics cognitive abilities (F_{obs} = 0,029 < F_{tabel} = $F_{0,05;1;75}$ = 4,00). Model application of REACT learning through experimental and demonstration methods and attitudes scientific students have their own influence on student physics cognitive abilities in work and energy materials.

Keywords: *REACT Model, Experiments, Demonstrations, Scientific Attitudes, Work and Energy.*